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(FILE 'HOME' ENTERED AT 12:05:47 ON 11 OCT 2006)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 12:06:09 ON 11 OCT 2006

L1 235 S (ANTI NITROTYROSINE ANTIBOD?)  
L2 1 S L1 AND DNPH?  
L3 69 S L1 AND (OXIDAT?)  
L4 39 S L3 AND STRESS?  
L5 20 DUPLICATE REMOVE L4 (19 DUPLICATES REMOVED)  
L6 6681 S DINITROPHENYLHYDRAZINE?  
L7 2 S L6 AND L5  
L8 2 DUPLICATE REMOVE L7 (0 DUPLICATES REMOVED)

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L6 6681 S DINITROPHENYLHYDRAZINE?  
L7 2 S L6 AND L5  
L8 2 DUPLICATE REMOVE L7 (0 DUPLICATES REMOVED)

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AN 95261594 EMBASE

DN 1995261594

TI Reactive species in ischemic rat lung injury: Contribution of peroxynitrite.

AU Ischiropoulos H.; Al-Mehdi A.B.; Fisher A.B.

CS Institute for Environmental Medicine, John Morgan Bldg., Univ. of Pennsylvania, 3620 Hamilton Walk, Philadelphia, PA 19104-6068, United States

SO American Journal of Physiology - Lung Cellular and Molecular Physiology, (1995) Vol. 269, No. 2 13-2, pp. L158-L164. ISSN: 1040-0605 CODEN: APLPE7

CY United States

DT Journal; Article

FS 002 Physiology  
037 Drug Literature Index

LA English

SL English

ED Entered STN: 26 Sep 1995  
Last Updated on STN: 26 Sep 1995

AB Lung ischemia-reperfusion represents a potentially important mechanism for diverse forms of tissue injury associated with decreased pulmonary flow. Previous studies demonstrated oxidative injury in ischemic-reperfused lungs. The present study was designed to evaluate the contribution of nitric oxide and peroxynitrite in tissue injury. The levels of the stable decomposition products of nitric oxide and peroxynitrite, nitrite plus nitrate, were twofold greater than control during reperfusion after 60 min of ischemia. Inhibition of nitric oxide synthesis by endotracheal insufflation of 5 mM N(G)-nitro-L-arginine methyl ester, 30 min before the induction of ischemia, decreased the production of lung thiobarbituric acid reactive substances (TBARS) by 67% ( $P < 0.05$ ,  $n = 5$ ), TBARS released into the lung perfusate by 55% ( $P < 0.05$ ,  $n = 5$ ), lung-conjugated dienes by 61% ( $P < 0.05$ ,  $n = 5$ ), and dinitrophenylhydrazine-reactive protein carbonyl levels by 86% ( $P < 0.05$ ,  $n = 5$ ). Amino acid analysis of tissue homogenates from lungs exposed to 60 min of ischemia and 60 min of reperfusion revealed a 1.8-fold ( $P < 0.05$ ,  $n = 5$ ) increase in nitrotyrosine concentration compared with 2 h continuously perfused lungs. Inhibition of nitric oxide synthesis abolished the increase in nitrotyrosine levels. Furthermore, lungs exposed to 60 min of reperfusion after 60 min of ischemia showed specific binding of an anti-nitrotyrosine antibody. In reperfused tissues, antibody binding was observed throughout the lung. The binding was blocked with excess of nitrotyrosine, and minimal binding was observed in nonperfused blood-free control lungs. These results indicate that a strong oxidant derived from nitric oxide consistent with the reactivity of peroxynitrite contributes to the oxidative injury of isolated rat lung from ischemia-reperfusion.

CT Medical Descriptors:  
\*lung injury: ET, etiology  
\*lung perfusion  
animal cell  
animal experiment  
animal tissue  
article  
controlled study  
lung blood flow  
male  
nonhuman  
oxidation  
oxidative stress  
oxygen transport  
pathophysiology

priority journal

rat

reperfusion

Drug Descriptors:

\*n(g) nitroarginine methyl ester: PD, pharmacology

\*nitric oxide: EC, endogenous compound

\*oxidizing agent: EC, endogenous compound

\*thiobarbituric acid reactive substance: EC, endogenous compound

peroxynitrite: EC, endogenous compound

RN (n(g) nitroarginine methyl ester) 50903-99-6; (nitric oxide) 10102-43-9

=>

AN 1975:27408 CAPLUS

DN 82:27408

ED Entered STN: 12 May 1984

TI Chemical modification of nucleic acids. II. Reaction  
of calf thymus DNA with hydrazine and 2,4-dinitrophenylhydrazine

AU Tsai, Kuang-Hsin; Kantesaria, P.; Marfey, P.

CS Dep. Biol. Sci., State Univ. New York, Albany, NY, USA

SO Physiological Chemistry and Physics (1974), 6(4), 353-66

CODEN: PLCHB4; ISSN: 0031-9325

DT Journal

LA English

CC 6-2 (General Biochemistry)

AB 2,4-Dinitrophenylhydrazine (DNPH) reacted with deoxyadenosine, deoxyguanosine, and deoxycytidine under mild conditions, but not with thymidine. Only deoxycytidine reacted with hydrazine at pH 6. Treatment of DNA with DNPH at pH 4 led to the incorporation of 1 DNPH group/111-165 deoxynucleotide residues. Treatment of DNA 1st with hydrazine at pH 6 followed by treatment with excess 1-fluoro-2,4-dinitrobenzene at pH 8.2 afforded derivs. in which, depending on exptl. conditions, 1 DNPH group was introduced/29-528 deoxynucleotide residues. The derivs. obtained exhibited high mol. weight and retained the native structure. The covalently attached DNPH chromophore in DNA may be a useful absorption probe in a study of its interaction with other mols. or ions.

ST DNA reaction hydrazine dinitrophenylhydrazine

IT Deoxyribonucleic acids

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with hydrazine and dinitrophenylhydrazine)

IT 119-26-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with DNA)

IT 70-34-8

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with DNA hydrazine derivative)

IT 961-07-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with dinitrophenylhydrazine)

IT 951-77-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with dinitrophenylhydrazine and hydrazine)

IT 302-01-2, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(with DNA)

IT 58-61-7, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(with dinitrophenylhydrazine)

ANSWER 6 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1975:27408 CAPLUS

DN 82:27408

ED Entered STN: 12 May 1984

TI Chemical modification of nucleic acids. II. Reaction of calf thymus DNA with hydrazine and 2,4-dinitrophenylhydrazine

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DT Journal

LA English

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AB 2,4-Dinitrophenylhydrazine (DNPH) reacted with deoxyadenosine, deoxyguanosine, and deoxycytidine under mild conditions, but not with thymidine. Only deoxycytidine reacted with hydrazine at pH 6. Treatment of DNA with DNPH at pH 4 led to the incorporation of 1 DNPH group/111-165 deoxynucleotide residues. Treatment of DNA 1st with hydrazine at pH 6 followed by treatment with excess 1-fluoro-2,4-dinitrobenzene at pH 8.2 afforded derivs. in which, depending on exptl. conditions, 1 DNPH group was introduced/29-528 deoxynucleotide residues. The derivs. obtained exhibited high mol. weight and retained the native structure. The covalently attached DNPH chromophore in DNA may be a useful absorption probe in a study of its interaction with other mols. or ions.

ST DNA reaction hydrazine dinitrophenylhydrazine

IT Deoxyribonucleic acids

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with hydrazine and dinitrophenylhydrazine)

IT 119-26-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with DNA)

IT 70-34-8

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with DNA hydrazine derivative)

IT 961-07-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with dinitrophenylhydrazine)

IT 951-77-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with dinitrophenylhydrazine and hydrazine)

IT 302-01-2, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(with DNA)

IT 58-61-7, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(with dinitrophenylhydrazine)

ANSWER 1 OF 226 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on  
STN  
AN 2001:462605 BIOSIS  
DN PREV200100462605  
TI Processes for detecting polynucleotides, determining genetic mutations or  
defects in genetic material, separating or isolating nucleic  
acid of interest from samples, and useful compositions of matter  
and multihybrid complex compositions.  
AU Engelhardt, Dean L. [Inventor, Reprint author]; Rabbani, Elazar [Inventor]  
CS New York, NY, USA  
ASSIGNEE: Enzo Diagnostics, Inc., New York, NY, USA; c/o Enzo Biochem,  
Inc., New York, NY, USA  
PI US 6221581 20010424  
SO Official Gazette of the United States Patent and Trademark Office Patents,  
(Apr. 24, 2001) Vol. 1245, No. 4. e-file.  
CODEN: OGUPE7. ISSN: 0098-1133.  
DT Patent  
LA English  
ED Entered STN: 3 Oct 2001  
Last Updated on STN: 22 Feb 2002  
AB Double hybrid or multihybrid probes and compositions are usefully combined  
with capture assay and immobilization to provide for detection processes  
in which target polynucleotides can be detected or the presence or absence  
of genetic mutations or defects in genetic material can be determined.  
The capture assay involves capturing a hybrid structure, e.g., single  
hybrid, double hybrid or multihybrid, or capturing a complex formed by  
reacting a hybrid structure with a complex forming moiety, e.g., protein,  
such as a binding protein including an antibody. Immobilization  
can also be employed prior to hybridization or complexation in which  
instance a polynucleotide probe can be fixed to a matrix or solid  
support, e.g., natural or synthetic. Capture and immobilization  
can be carried out using direct and indirect binding and attachment  
techniques. Targets can be detected directly or indirectly by using a  
signal generating moiety and labels.  
NCL 435006000  
CC General biology - Miscellaneous 00532  
IT Major Concepts  
    Molecular Genetics (Biochemistry and Molecular Biophysics); Methods and  
    Techniques  
IT Methods & Equipment  
    genetic material defect detection: detection method; genetic mutation  
    determination: determination method; nucleic acid  
    isolation: isolation method; nucleic acid  
    separation: separation method; polynucleotide detection: detection  
    method  
IT Miscellaneous Descriptors  
    double hybrid probes; multihybrid probes  
L7 ANSWER 2 OF 226 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation

AN 2000:633957 CAPLUS

DN 134:82839

ED Entered STN: 13 Sep 2000

TI Immobilization of protein monolayers on planar solid  
supports

AU Dubrovsky, Timothy B.

CS Roche Diagnostic Systems, Inc., Somerville, NJ, USA

SO Protein Architecture (2000), 25-54. Editor(s): Lvov, Yuri;  
Moehwald, Helmuth. Publisher: Marcel Dekker, Inc., New York, N. Y.

CODEN: 69AHGU

DT Conference; General Review

LA English

CC 9-0 (Biochemical Methods)

AB A review with 111 refs. is presented regarding the critical steps of preparation, activation, and characterization of self-assembled monolayers of silane mols. The strategies for synthesis of two self-assembling systems that can be used for covalent immobilization of protein monolayers on solid supports are described. The first class of self-assembling system is alkylsilane compds. with different terminal functionalities. The general procedures for silanization of silicon and glass surfaces as well as the anal. methods for characterization of self-assembled monolayers are described. Characterization by spectrosopies, ellipsometry, and contact angles verified that synthetic routes employed lead to well-defined surfaces with controlled mol. architecture that can be routinely used in various biomaterials investigations. It has been demonstrated that monolayers of mitochondrial cytochrome P450scc and oriented antibody layers can be transferred from the air-water interface to the silanized quartz supports without damage to the structure. The second class of self-assembling system discussed is  $\omega$ -substituted alkanethiols chemisorbed onto the surface of gold. Alkanethiol monolayers are stable, permit the introduction of a variety of functional groups onto surfaces, and can be well organized. These monolayers can host either active groups or affinity ligands for the specific binding of protein mols. This approach to synthesis of model surfaces may find use in diagnostic assays and affinity chromatog.

ST review protein immobilization planar support

IT Proteins, general, reactions

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
(immobilization of protein monolayers on planar solid supports)

IT Immobilization, biochemical

(protein; immobilization of protein monolayers on planar solid supports)

RE.CNT 111 THERE ARE 111 CITED REFERENCES AVAILABLE FOR THIS RECORD

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nitrite: EC, endogenous compound

ketone body: EC, endogenous compound

urobilinogen: EC, endogenous compound

chorionic gonadotropin: EC, endogenous compound

collagen

RN (DNA) 9007-49-2; (streptavidin) 9013-20-1; (metalloproteinase) 81669-70-7;  
(hyaluronic acid) 31799-91-4, 9004-61-9, 9067-32-7; (hyaluronidase)  
9001-54-1, 9055-18-9; (lysozyme) 9001-63-2; (polystyrene) 9003-53-6;  
(biotin) 58-85-5; (protein) 67254-75-5; (1 (3 dimethylaminopropyl) 3  
ethylcarbodiimide) 1892-57-5, 25952-53-8, 7084-11-9; (glucose) 50-99-7,  
84778-64-3; (oxidoreductase) 9035-73-8, 9035-82-9, 9037-80-3, 9055-15-6;  
(peroxidase) 9003-99-0; (peroxide) 14915-07-2; (bilirubin) 18422-02-1,  
635-65-4; (nitrite) 14797-65-0; (urobilinogen) 11000-27-4; (chorionic  
gonadotropin) 9002-61-3; (collagen) 9007-34-5

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AN 1999358516 EMBASE

TI Microscale determinations using solid phase assays: Applications to biochemical, clinical and biotechnological sectors. A review.

AU Vynios D.H.

CS D.H. Vynios, Laboratory of Biochemistry, Section of Organic Chemistry, Department of Chemistry, 261 10 Patras, Greece

SO Journal of Liquid Chromatography and Related Technologies, (1999 ) Vol. 22, No. 17, pp. 2555-2574. .

Refs: 36

ISSN: 1082-6076 CODEN: JLCTFC

CY United States

DT Journal; General Review

FS 027 Biophysics, Bioengineering and Medical Instrumentation  
029 Clinical Biochemistry

LA English

SL English

ED Entered STN: 29 Oct 1999  
Last Updated on STN: 29 Oct 1999

AB The assays that have one of the reactant species immobilized onto a solid support are described as solid phase assays. During the last 20 years a large number of such assays has been developed, the majority of which are quantitative analytical methods known under the general term ELISA (Enzyme Linked ImmunoSorbent Assay). Solid phase assays, in general, have widely been used in Biochemistry, Clinical Chemistry, and Biotechnology, mainly for analytical purposes, and for the detection of specific macromolecules or the study of interactions between various molecules, as well.

CT Medical Descriptors:

- \*assay
- enzyme linked immunosorbent assay
- clinical chemistry
- biotechnology
- polymerase chain reaction
- zymography
- human
- review

Drug Descriptors:

- \*messenger RNA: EC, endogenous compound
- \*DNA: EC, endogenous compound
- \*streptavidin
- \*metalloproteinase: EC, endogenous compound
- \*hyaluronic acid
- \*hyaluronidase: EC, endogenous compound
- \*autoantibody: EC, endogenous compound
- \*oligosaccharide
- \*lysozyme
- \*aggrecan
- polystyrene
  - monoclonal antibody
- antigen
- biotin
- avidin
- protein
- proteoglycan
- glycosaminoglycan
- 1 (3 dimethylaminopropyl) 3 ethylcarbodiimide
- glucose: EC, endogenous compound
- oxidoreductase
- peroxidase
- peroxide
- bilirubin: EC, endogenous compound

nitrite: EC, endogenous compound  
ketone body: EC, endogenous compound  
urobilinogen: EC, endogenous compound  
chorionic gonadotropin: EC, endogenous compound  
collagen

RN (DNA) 9007-49-2; (streptavidin) 9013-20-1; (metalloproteinase) 81669-70-7;  
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84778-64-3; (oxidoreductase) 9035-73-8, 9035-82-9, 9037-80-3, 9055-15-6;  
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635-65-4; (nitrite) 14797-65-0; (urobilinogen) 11000-27-4; (chorionic  
gonadotropin) 9002-61-3; (collagen) 9007-34-5

PALM Intranet

Application  
Number

Submit

## IDS Flag Clearance for Application 10626380

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Information

Content	Mailroom Date	Entry Number	IDS Review	Last Modified	Reviewer
M844	2003-08-21	13	Y <input checked="" type="checkbox"/>	2006-10-11 13:38:18.0	LCook

Update